

REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 1 - 18 are pending in the application. Currently, no claim has been allowed.

By the present amendment, claim 1 has been cancelled, claims 2 and 3 have been placed into independent form, the dependency of claims 4 and 5 has been changed to reflect the cancellation of claim 1, and new claims 19 - 21 have been added to the case.

In the office action mailed June 28, 2004, claims 1 - 5 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 5,569,508 to Cundiff; claims 6 - 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Cundiff in view of U.S. Patent No. 5,762,145 to Bennett or U.S. Patent No. 4,767,656 to Chee et al., or U.S. Patent No. 5,251,849 to Torres.

The foregoing rejections are traversed by the instant response.

The present invention relates to a self extinguishing composite primary structure which can be used in a helicopter component. The self extinguishing composite primary structure comprises a core formed from a cellular material and a thermal insulating material, such as a Fiberglass material. The core has a first surface and a second surface. The primary structure further comprises at least one ply of a structural graphite prepreg material bonded to each of the first and second surfaces.

Claim 2 has been placed into independent form. In order to anticipate a claim, a reference must teach all of claim

limitations. The Cundiff patent does not teach or suggest bonding each ply to each of said first and second surfaces by an epoxy structural film adhesive. For this reason, claim 2 as amended is allowable over the Cundiff patent.

Claim 3 has also been placed into independent form. As stated above, in order to anticipate a claim, a reference must teach all of the claim limitations. The Cundiff patent does not teach or suggest a structure having a plurality of plies of structural graphite prepreg bonded to each of said first and second surfaces by an epoxy structural film adhesive.

Claims 4 and 5 are allowable for the same reasons as their parent claims as well as on their own accord.

New claims 19 and 20 are allowable because Cundiff does not teach or suggest a self extinguishing composite primary structure wherein the adhesive comprises a 350 degree Fahrenheit epoxy structural film adhesive.

Claims 6 - 18 are allowable because none of Cundiff, Bennett, Chee et al., or Torres teaches or suggests the claimed subject matter. None of the references relate to forming particular helicopter components from a self-extinguishing composite material. For example, none of the references teach or suggest forming an outer skin panel in a cockpit section (claim 7), an upper cabin door (claim 8), a lower cabin door (claim 9), a lower cabin door steps (claim 10), a cabin floor section (claim 11), an emergency egress hatch (claim 12), and an upper door in a transaction section (claim 13). Still further, none of the references teach or suggest the epoxy structural adhesive of claim 14, the adhesive of claim 15, and the plurality of plies bonded to first and second surfaces by an epoxy structural film adhesive of claim 16.

The Cundiff patent is totally silent on using his composite material to form any helicopter component. The Bennett patent relates to a highway vehicle fuel tank fire protection device. Column 1, lines 44 - 47 in Bennett only point out that military aircraft when hit with anti-aircraft projectiles can develop fires in areas adjacent to fuel tanks. The Bennett patent does not offer anything like the composite material of the present invention as a solution to this problem. The panel in Bennett contains an extinguishant which is released upon impact. Given this teaching in Bennett, there is no reason to combine Bennett with Cundiff since Cundiff's composite structure does not have such an extinguishant. Even if the combination were proper, there still would be no teaching of forming helicopter components from such a material.

With respect to the Chee et al. and Torres patents, these rejections are deficient in that the Examiner has not pointed to any particular portion of these patents teaching or suggesting the claimed invention. The only patent referred to in these rejections is Bennett. How the Examiner is combining either of these references with Cundiff is unknown. Thus, the Examiner has not made out a *prima facie* case of obviousness. It should be noted however that the Chee et al. and Torres patents suffer the same deficiency as Bennett. Neither of these patents teaches forming a helicopter component from a self-extinguishing composite material.

New claim 21 is clearly allowable over the cited and applied references since none of them teach or suggest forming an access or egress component from the claimed self extinguishing composite material.

The instant application is believed to be in condition for allowance for the foregoing reasons. Such allowance is respectfully solicited.


Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, the Examiner is hereby invited to contact Applicants' attorney at the telephone number listed below.

A check in the amount of \$86.00 is enclosed herewith to cover the cost of the additional independent claim. Should the Commissioner determine that an additional fee is due, he is hereby authorized to charge said fee to Deposit Account No. 02-0184.

Respectfully submitted,

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I, Nicole Motzer, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on September 28, 2004.

